IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: MESSINA

Serial No.: 10/810929 Group No.:

Filed: 26 March 2004 Examiner:

For: COMPUTER-BASED SYSTEM AND COMPUTER PROGRAM FOR INTERROGATING A USER AND GENERATING A RESULT BASED UPON THE USER'S INTERROGATORY RESPOSES

DECLARATION OF PRIOR INVENTION IN THE UNITED STATES UNDER 37 C.F.R. 1.131

The inventor of the subject matter of the above-identified patent application hereby makes this declaration prior to final rejection in order to establish completion of his invention in the United States prior to March 11, 2003, the effective date of US Published Application 2005/0065813, cited by the examiner.

I, Edmund Messina, inventor of the subject matter claimed and described in the above-identified patent application, declare as follows:

1. I reduced to practice the invention of at least claims 1, 2, 4, 8, 9, 10, 11, 13, 17, 18, 19 and 20 of the above-identified patent application prior to March 11, 2003, which is a date prior to the effective date of US Published Application 2005/0065813 cited against the aforesaid claims. Evidence of such reduction to practice is set forth below.

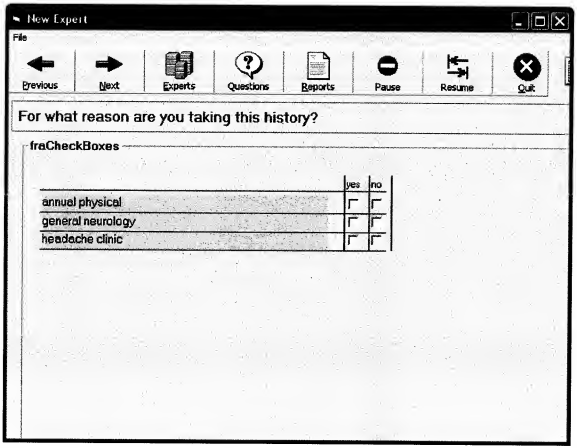
2. Independent claims 1 and 10 recite a computer program (claim 1) or computer-based system (claim 10) for interrogating a user and generating a result, for example a report, based upon the user's interrogatory answers,

comprising "a computer-readable memory device encoded with a database comprising a plurality of predefined questions and associated, predefined answers, wherein the plurality of questions and answers are organized in a predefined relationship between a pre-designated starting question and one or more ending questions to thereby define a plurality of possible logical interrogatory paths through the database, and wherein further the selection of any one of the plurality of possible logical paths is user-answer-dependent."

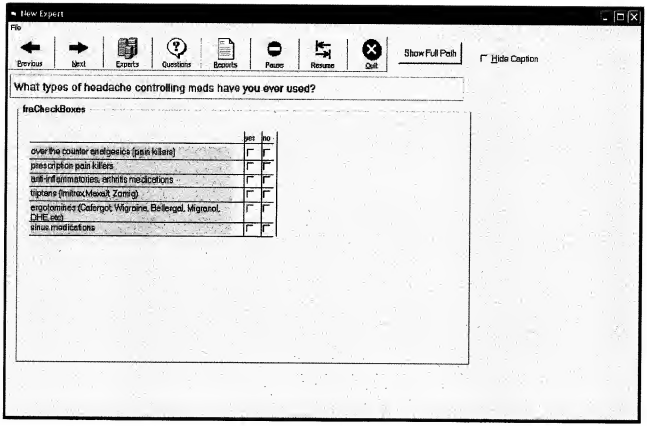
Reproduced below are several screenshots (1-4), all of which are shown as they existed prior to March 11, 2003, depicting from the invention as it then existed a series of graphical user interface screens presenting questions for the user to answer (in the example shown, as part of a medical history interrogation). Each of the screenshots below evidences that the invention at the time (i.e., prior to March 11, 2003) was operative to present a plurality of predefined questions (e.g., "For what reason are you taking this history?," "What types of headache controlling meds have you ever used?," "Which of the following over-the-counter meds have you been using?," and "Which prescription headache medications have you been using?") and associated, predefined answers (shown in connection with the "yes" or "no" answer boxes in each screenshot; e.g., in the first screenshot below, "annual physical," "general neurology," "headache clinic"). Implicitly, the presentation of these screenshots as part of the invention's operation evidences the existence of a computer-readable memory device encoded with a database comprising the plurality of predefined questions and associated, predefined answers. That the invention further comprehended, at the

time in question (i.e., prior to March 11, 2003), organization of the questions and answers in a predefined relationship to define a plurality of possible logical interrogatory paths the selection of which is user-answer-dependent is evidenced by the last three screenshots (2-4). As shown, the second screenshot questions the user on his/her use, if any, of headache controlling medications. The possible answers include "over the counter analgesics (pain killers)" and "prescription pain killers." Only if the user selects "yes" in relation to the answer "over the counter analgesics (pain killers)" is the user subsequently presented with the question shown in the third screenshot ("Which of the following over-the-counter meds have you been using?"), and only if the user selects "yes" in relation to the answer "prescription pain killers" is the user subsequently presented with the question shown in the fourth screenshot ("Which prescription headache medications have you been using?"). Accordingly, it will be appreciated that in the exemplars shown below the invention was operative, at the time in question (i.e., prior to March 11, 2003), to define multiple, user-answer-dependent interrogatory paths; namely, a first interrogatory path in which the user is presented with neither the third or fourth screenshots if "no" is selected in relation to the answers "over the counter analgesics (pain killers)" and "prescription pain killers," a second interrogatory path in which the user is presented only with the third screenshot if he/she selected "yes" in relation to the answer "over the counter analgesics (pain killers)" and "no" in relation to the answer "prescription pain killers," and a third interrogatory path in which the user is presented only with the fourth screenshot if he/she selected "no" in relation to the answer "over

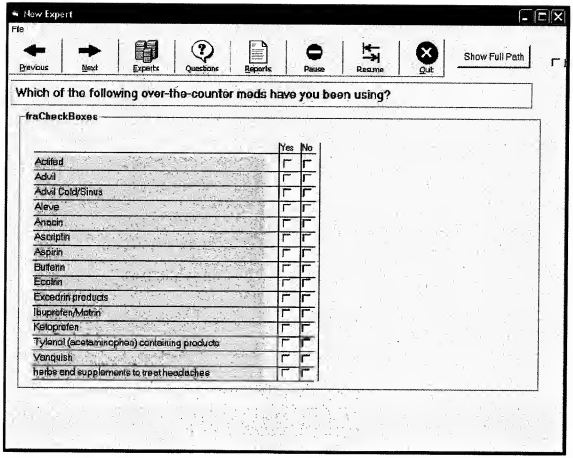
the counter analgesics (pain killers)" and "yes" in relation to the answer "prescription pain killers."



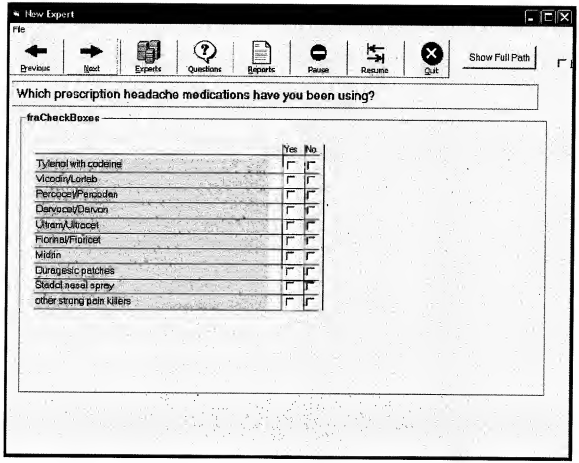
SCREENSHOT 1



SCREENSHOT 2



SCREENSHOT 3



SCREENSHOT 4

3. In further evidence of the reduction to practice, prior to March 11, 2003, of the invention of claims 1 and 10, there is attached a screenshot (5), shown as it existed prior to March 11, 2003, depicting from the invention as it then existed a database defining the plurality of possible logical interrogatory paths available based on the users' responses. More specifically, the database comprises a table arranged like a matrix wherein the rows thereof comprise unique processes the type and processing of which is determined by information in the columns. The type of each process is specifically determined by the value in the column labeled "QuesType." The values in the columns labeled "Choice"

(e.g., "Choice1," "Choice 2," "Choice 3," etc.) and in the column labeled "NextQuestion" determine the sequence of processes -- in other words, the interrogatory path. The second column (labeled "FM_ID") establishes a unique identifier for each row, while the twelfth column (labeled "NextQuestion") sets forth the logical next question if no branching in the interrogatory path is otherwise dictated. Columns thirteen through eighteen (labeled "Choice1" through "Choice6") contain branching to customize the logical interrogatory path based on a user's responses. These "Choice" columns correspond to the defined fields in columns 5 through 10 (labeled "Answer1" through "Answer6"). If a user chooses the response in "Answer2," for instance, the "FM_ID" in "Choice2" is the next process. If, on the other hand, the "Choice2" field is empty, or contains a zero, the "FM_ID" in the "NextQuestion" field is processed.

Relative to the screenshots 2-4 and the associated description thereof provided in Paragraph 2, above, and with continuing reference to screenshot 5, the first process presented to the user is "FM_ID 5," which is a "QuestionList" designating "ListQuestionItems" about the types of headache controlling medications the user may take (screenshot 2). Since no values appear in the "Choice" columns for this process, the next logical process -- i.e., value 12 in the "NextQuestion" column-- is presented to the user. The "NextQuestion" value 12 processes "FM_ID 12," which is an interrogatory ("QuestType 5"). The related record in an associated Interrogation Table designates it as an "invisible" question referencing the answer of the first question from the prior list (screenshot 2). If the user chose the first answer ("Yes"), then "Choice1" (value

of 41) is processed next. If the user chose the second answer ("No") the value in "Choice2" is processed next. Since the value in "Choice2" equals zero, no branching occurs and the next question value is processed next (value 13 in the example).

In the particular example of screenshot 2, where the user answers "Yes" to the first question ("over the counter analgesics (pain killers)"), this causes record value 41 to process next. "FM_ID 41" is a list question process inquiring about the types of over-the-counter medications the user has used (screenshot 3, above). Following the "ListQuestion" process ("FM_ID 41") is the value in the "NextQuestion" column of this record where FM_ID = 41. The "NextQuestion" value of 97 is processed next, referencing the answer to the question "Advil (Yes/No)" (screenshot 3). If the user answers "Yes" to using Advil, the value in "Choice1" is processed next ("FM_ID 409"). However, if the user answers "No" ("Answer2"), the next logical question ("NextQuestion = 98") is processed next as the "Answer2" value contains a zero.

The logical interrogatory path is thus determined by the user's responses and the values in this main table (screenshot 5). Processing in this fashion according to the invention as it existed prior to March 11, 2003, continues until a value of –1 is encountered as the next process. This value signifies the end of the interrogation process.

4. Each of claims 1 and 10 further recite "a computer-readable memory device encoded with a user interface for displaying questions from the database and accepting answers from a user, and a computer-readable memory

device encoded with an engine operative to present questions from the database to the user interface, and to navigate one of the plurality of possible logical interrogatory paths through the database as dictated by a user's answers to the questions presented at the user interface."

The above-reproduced screenshots (1-4), all of which are shown as they existed prior to March 11, 2003, evidence that the invention at the time in question comprised an interactive, graphical user interface presenting in series questions the answers to which the user could select (for instance by checking boxes, as shown) from among a number of predetermined responses. Implicitly, and with consideration being given to the explanation of Paragraphs 2 and 3, above, respecting the invention's comprehension of multiple logical interrogatory paths, the presentation of the foregoing screenshots (1-4) as part of the invention's operation evidences that the software engine was operative to present questions from the database to the user interface, and to navigate one of the plurality of possible logical interrogatory paths through the database as dictated by a user's answers to the questions presented at the user interface.

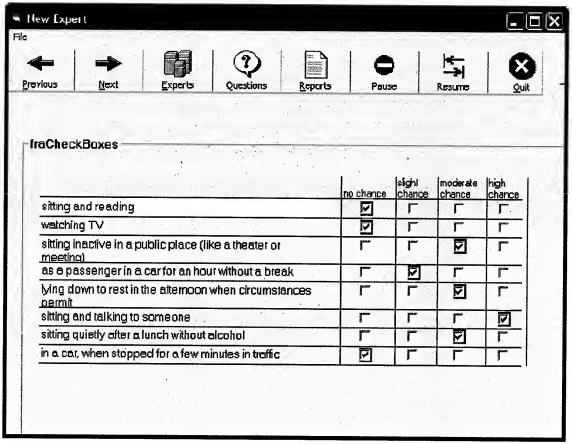
5. Independent claim 19 recites "[a] method for interrogating a user and generating a result, for example a report," comprising steps corresponding to the limitations of claims 1 and 10; namely: interrogating a user with predefined questions from a computer database comprising the predefined questions and associated, predefined answers, wherein the questions and answers are organized in a predefined relationship between a pre-designated starting question and one or more ending questions to thereby define a plurality of

possible logical interrogatory paths through the computer database, the selection of any one of the plurality of possible logical paths being user-answer-dependent, and wherein further the interrogation step is facilitated by an user interface operative to display the predefined questions from the at least one computer database, and to accept answers from a user provided in response to the displayed questions; and displaying a result at the user interface following the interrogation step, wherein the result is based upon a user's answers to the displayed questions. Evidence of the actual reduction to practice of this methodology prior to March 11, 2003, is set forth hereinabove in the form of the evidence provided above (*see* Paragraphs 2 and 3 and screenshots 1-5) in demonstration of the actual reduction to practice of the computer software and system for practicing that methodology, as recited in independent claims 1 and 10.

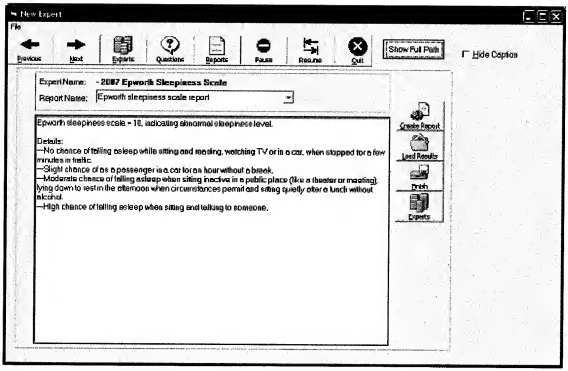
6. Claims 2, 11 and 20 recite a computer database further comprising "content and rules for generating at least one report based upon a user's answers to questions presented at the user interface, the content and rules having a predefined relationship with the plurality of predefined questions and answers of the database so that the content of the at least one report is dependent upon a user's answers to questions from the database, and wherein further the engine is operative to generate from the reporting database at least one report using the content and rules from the database."

Reproduced below are several screenshots (6-12), all of which are shown as they existed prior to March 11, 2003, depicting operation of the invention of

claims 2, 11 and 20 and, more particularly, the generation of a report ("Epworth sleepiness scale report"), shown in screenshot 7 below, from a user's answers (checked boxes) to questions presented at the user interface (e.g., "sitting and reading," "watching TV," "sitting inactive in a public place (like a theater or meeting)," "as a passenger in a car for an hour without a break," etc.), shown in screenshot 6 reproduced below.



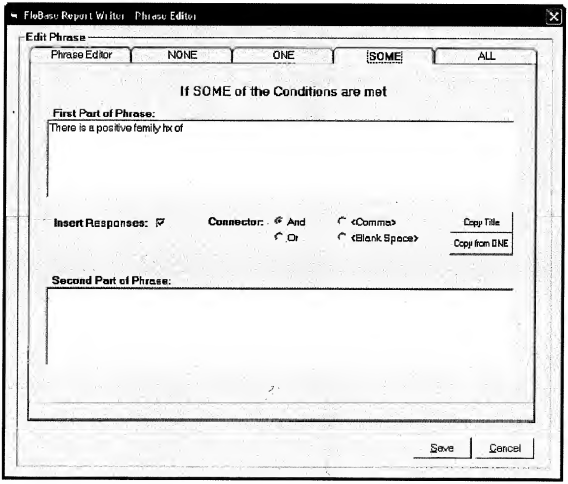
SCREENSHOT 6



SCREENSHOT 7

Though the employment in generation of the foregoing report of content and rules as claimed is implicit (the report of screenshot two self-evidently comprises content (here, in the form of lines of text) presented in a specified form -- i.e., according to rules (here, specifying, based upon the user's interrogatory answers, what content is presented and how)), further evidence of reduction to practice of the invention of claims 2, 11 and 20 prior to March 11, 2003, is provided in the below-reproduced screenshots (8-11), all of which are shown as they existed prior to March 11, 2003. The following screenshots more particularly show the presence of content and rules for generation of a report based upon a user's interrogatory answers. As shown in the first screenshot below, the invention as it then existed included the "Report Writer" portion with a "phrase

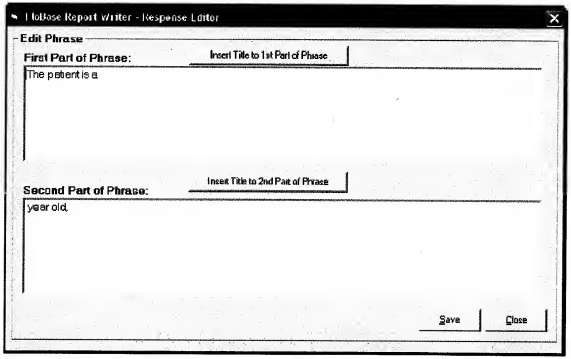
editor" function setting forth content (e.g., "First Part of Phrase") and rules (e.g., "If SOME of the Conditions are met," "Insert Responses," "Connector," etc.) for a report generated from a user's interrogatory responses (in the depicted example, as generated from a medical history interrogation).



SCREENSHOT 8

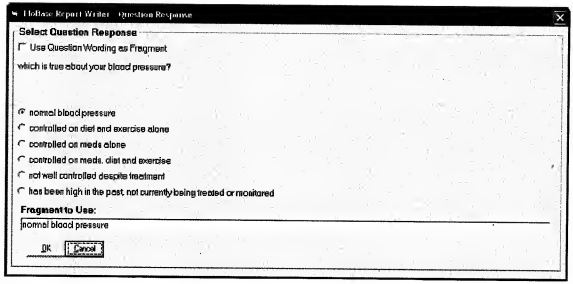
Similarly, screenshot 9 (below) depicts a "Response Editor" portion of the "Report Writer" portion of the invention as it then existed, and likewise demonstrates content (e.g., "First Part of Phrase") and rules (e.g., "Insert Title to 1st Part of Phrase," "Insert Title to 2nd Part of Phrase") for a report generated from a user's

interrogatory responses (in the depicted example, as generated from a medical history interrogation soliciting the user's age).

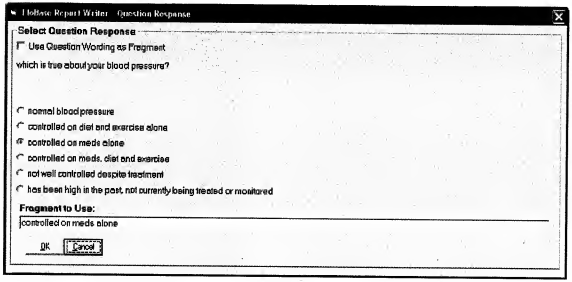


SCREENSHOT 9

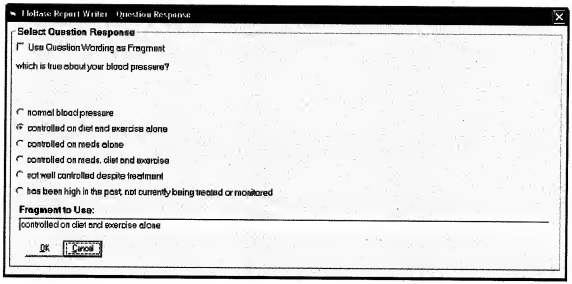
The remaining three screenshots (10-12) depict a "Question Response" portion of the "Report Writer" of the invention as it then existed (i.e., prior to March 11, 2003) and also demonstrates content (e.g., "Fragment to Use") and rules (e.g., "Use Question Wording as Fragment") for a report generated from a user's interrogatory responses (in the depicted example, as generated from interrogation about the user's blood pressure).



SCREENSHOT 10



SCREENSHOT 11



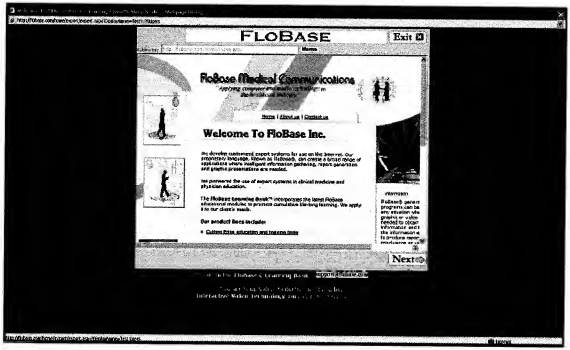
SCREENSHOT 12

7. The invention of dependent claims 4 and 13 both recite that "the computer-readable memory device encoded with the database, the computer-readable memory device encoded with the user interface, and the computer-readable memory device encoded with the engine all comprise the same computer-readable memory device." The screenshots 1-12 reproduced above in connection with Paragraphs 2, 3 and 5 show the invention, identified as the "FloBase" expert system software, as it operated on a single desktop PC prior to March 11, 2003.

8. Dependent claims 8 and 17 both recite that "the database further comprises one or more URL addresses, wherein the engine is operative to display the URL addresses at the user interface, and wherein further the one or more URL addresses are associated with the predefined questions and answers

of the database so that the display of URL addresses at the user interface is dependent upon a user's answers to questions from the database."

Reproduced below is a screenshot (14), shown as it appeared prior to March 11, 2003, depicting the "FloBase" expert system software as it operated via an internet connection prior to March 11, 2003 (as shown, the "FloBase" name by which the invention was then identified appears prominently). The below-reproduced screenshot specifically depicts the presentation to a user of a web site (in particular, for FloBase Medical Communications) as part of a report generated for a user in response to the user's interrogatory answers.



SCREENSHOT 14

Implicitly, presentation of this website to a user via the interface evidences that the URL therefor comprised part of the database.

Additionally, screenshot 15 (attached), reproduced as it appeared prior to March 11, 2003, exemplifies a "URL Table" from database of the invention as it then existed. In this table, the "A_Number" value corresponds to an "A_Number" value in the "Main Table," described previously, which will be processed if a URL record ("QuesType 13") is encountered in the Main Table. If this occurs, the website listed in the "Address" column will be displayed. The process to follow thereafter is determined by the "FM_ID" value in the "NextQuestion" column of the record from the "MainTable."

9. The invention of dependent claims 9 and 18 both recite that "the engine is operative to display a plurality of the URL addresses at the user interface in a sequence the order of which is defined by a user's answers to questions from the database." Referring to the screenshots 14 and 15 from Paragraph 9, above, and further in consideration of the explanation of the operation of the invention as provided in that paragraph and elsewhere herein, it is evident that the invention was operative prior to March 11, 2003, to display multiple URL addresses at the user interface in an order defined by a user's answers to questions from the database. More particularly, screenshot 15, which comprises the URL Table portion of the database as it existed prior to March 11, 2003, shows the presence of multiple "A_Number" values corresponds to "A_Number" values in the "Main Table," described previously, each of which is processed if one or more URL records ("QuesType 13") are encountered in the "Main Table," leading to the display of one or more of the website listed in the "Address" column.

10. Prior to March 11, 2003, the invention of at least claims 1, 2, 4, 8, 9, 10, 11, 13, 17, 18, 19 and 20 of the above-identified application had specific and substantial utilities that were well established in the medical community.

11. My above-referenced application discloses and claims a computer-based system and computer program for interrogating a user and generating a result based upon the user's interrogatory responses. The written specification of my said application indicates specific utilities for such a system and program, including, without limitation, generating reports, for instance medical history reports, generating a medical diagnosis, generating individualized video presentations, etc. *See* p. 2, lines 1-9.

12. Evidence in the form of screenshots (*see* Screenshots 1-4, shown as they existed prior to March 11, 2003), shown above, depict from the invention as it then existed a series of graphical user interface screens presenting questions for a user to answer as part of a medical history interrogation in connection with one of an annual physical, providing a general neurology background, or for more specific treatment at a headache clinic (Screenshot 1). Each such screenshot self-evidently depicts the presentation to a user of a plurality of predefined questions pertaining to the generation of a medical history, including: "For what reason are you taking this history?" (Screenshot 1); "What types of headache controlling meds have you ever used?" (Screenshot 2); "Which of the following over-the-counter meds have you been using?" (Screenshot 3); and "Which prescription headache medications have you been using?" (Screenshot 4). These screenshots further self-evidently show that the

user (i.e., the patient) was presented with associated, predefined answers (i.e., "over the counter analgesics (pain killers)" and "prescription pain killers") in connection with "yes" or "no" answer boxes in each screenshot.

13. The invention as it existed prior to March 11, 2003, was operative to generate a result in the form of a medical history report based upon the user's answers to the interrogatory questions presented (such as the questions identified above). This is further evidenced from Paragraph 6, above, in regards to Screenshots 8-12. More particularly, that portion of this Declaration evidences the generation of a textual report comprised of a user's (in the specific example, a patient's) answers to questions about his/her age and blood pressure.

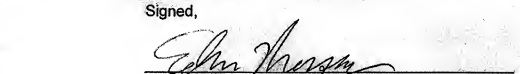
14. At the time of the invention, the utility of a patient's medical history was well established in the medical community, and would have been recognized as being so by one of ordinary skill in the art.

15. Further evidence of a result generated in consequence of a user's interrogatory answers is also set forth above. Particularly, this Declaration provides evidence in the form of several screenshots (shown as they existed prior to March 11, 2003), depicting (*see* Screenshots 6 and 7) the generation of an Epworth sleepiness scale report from a user's answers to questions presented at the user interface (e.g., "sitting and reading," "watching TV," "sitting inactive in a public place (like a theater or meeting)," "as a passenger in a car for an hour without a break," etc.). Still further evidence of the report-generating functionality is evidenced in Screenshot 7, which plainly shows a "Create Reports" button.

16. The utility of an Epworth sleepiness scale report for, by way of example, the diagnosis of obstructive sleep apnea, was well established in the medical community at the time of my invention, and would have been recognized as being so by one or ordinary skill in the art.

17. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true. I further declare that the statements herein are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of my above-identified patent application or any patent issued thereon.

Signed,



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